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ABSTRACT

A survey instrument was designed and administered to obtain a broad base of information concerning the presence of computers and computer literacy classes in public libraries in Ohio, Indiana, Illinois, and Minnesota. The results indicate that 50.8% of the 100 libraries that responded to the survey (80.6% of the original random sample) have public access microcomputers while only 9.8% offer computer literacy training. Ohio leads in both the number of public access computers and in the number of computer literacy training classes. The scope of the literacy classes varies widely. Classes are frequently taught by staff members. Software is usually selected by the director or assistant director. Patron recommendation is the primary consideration in software selection. Most of the software used by children is educational, whereas word processing, resume preparation, and Print Shop type programs are typically employed by adults. Funding comes primarily from the libraries' line item budgets, but other sources, in order of their frequency, include individual donations, LSCA (Library Services and Construction Act) grants, Friends of the Library, and foundations. The cover letter and questionnaire are appended. (Contains 102 references.)
(Author/ALF)

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SURVEY OF COMPUTERS IN PUBLIC LIBRARIES IN OHIO, ILLINOIS, INDIANA, AND MINNESOTA

A Master's Research Paper submitted to the
Kent State University School of Library Science
in partial fulfillment of the requirements
for the degree Master of Library Science

by

Barbara Jones

December, 1991

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ABSTRACT

Computers are becoming commonplace in our rapidly changing society. Computer literacy and access to computerized information will be essential to survival in the twenty-first century. With these thoughts in mind, some librarians have instituted computer literacy programs for young and old alike.

The researcher designed and administered a survey instrument to ascertain a broad base of information concerning the presence of computers and computer literacy classes in public libraries in Ohio, Indiana, Illinois, and Minnesota.

The results indicate that 50.8% of the libraries surveyed have public access microcomputers while only 9.8% offer computer literacy training. Ohio leads in both the number of public access computers and in the number of computer literacy training classes. The scope of the literacy classes varies widely. Classes are frequently taught by staff members. Software is usually selected by the director or assistant director. Patron recommendation is the primary consideration in software selection. Most of the software used by children is educational, whereas word processing, resume preparation, and Print Shop type programs are typically employed by adults.

Funding comes primarily from the libraries' line item budgets, but other sources, in order of their frequency, include individual donations, LSCA grants, Friends of the Library and foundations.

Master's Research Paper by

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B.A., Youngstown State University, 1972

M.L.S., Kent State University, 1991

Approved by

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TABLE OF CONTENTS

LIST OF TABLES.....iv

ACKNOWLEDGEMENT.....v

Chapter

I. INTRODUCTION.....1
A. PURPOSE.....3
B. DEFINITION OF TERMS.....4
C. LIMITATIONS OF STUDY.....4

II. LITERATURE REVIEW.....5

III. METHODOLOGY.....25

IV. ANALYSIS OF THE DATA.....26

V. SUMMARY AND CONCLUSION.....38

APPENDICES

A. COVER LETTER.....40

B. QUESTIONNAIRE.....41

NOTES.....45

BIBLIOGRAPHY.....49

LIST OF TABLES

Table Number P

1. Number of Libraries by Collection Size and State....27

2. Computer Literacy Programs by State.....31

3. Means of Financing Public Access Computers.....32

4. Type of Computer Software by User.....36

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I. INTRODUCTION

Computers are becoming commonplace in our rapidly changing society. Computer literacy and access to computerized information will be essential to survival in the twenty-first century. With these thoughts in mind, some librarians have instituted a computer literacy program for young and old alike.

As early as 1979 a few pilot projects were initiated to teach computer literacy to public library patrons.[1] As time passed, more librarians decided to offer computer literacy classes. With the decreasing cost of microcomputers and the proliferation of quality software, classes in libraries expanded. Justification for the introduction of computer literacy programs into libraries varied. At times it was seen to prepare the patrons for the eventual coming of the automated catalog and other sophisticated electronic equipment.[2] Some libraries tried to make up for the deficiencies in the local school districts.[3] Still others felt an obligation to teach how to access information in the newest form and remain in the avant garde of this new technology by enhancing "the public image of a 21st century public library providing state of the art informational and recreational media."[4]

Public librarians felt that having computer literacy programs in their libraries was superior to those programs found in school libraries.[5] Public libraries offer computers for use in a non-threatening environment. The child can move at his own pace without the fear of being graded. Furthermore, the child is permitted more free time to play, experiment, and create with fewer time constraints.[6] Since software used in computer literacy

classes in schools must support the curriculum, the software chosen is often mindless and repetitive. Public libraries may select software which may focus on creative endeavors.[7]

The positive benefits of having computer literacy classes for youngsters are numerous. Janet Abernethy contends that computer literacy can give children a psychological advantage over those who are not computer literate. Having achieved mastery and competency at a computer enhances a child's self-confidence and independence.[8]

More families appear to be coming into the library to use the computers.[9] They often work together on programs. Fathers, in particular, are often seen working with their preschool youngsters.[10] Additionally, the number of children between ten and eleven who used to be "lost" patrons to the library are now returning to the library to use the computers.[11]

Oldsters even feel more important when they have computer literacy classes. Computer literacy classes for senior citizens are heavily utilized in many systems.[12] One senior citizen proudly proclaimed that they (the seniors) must be "worth something or it would not spend time to teach them anything."[13]

Librarian Heidi Ebrahim noted that a large number of the public coming in to the library wouldn't set foot in a library if it were not for the public access microcomputers.[14]

Even though a number of studies of individual libraries and their approach to introducing computers and computer literacy classes has been written, little has been done to bring together descriptive information concerning the introduction of computer

literacy classes for a broad base of libraries. The article which most comprehensively covers the topic of computers in libraries is Douglas A. Wright's "Patron Use of Computers in Public Libraries" (ED272181). Wright covers all aspects of computers in public libraries, but only briefly mentions computer training sessions. According to Wright, only half of the libraries with public access computers offer training classes.[15] Although the overall number of "training" sessions are enumerated, little information is offered as to the number of sessions in computer literacy classes. A session may well be a single 60-minute introduction on how to handle disks, load them into the disk drive, and an explanation of the important keys and keystrokes. Another important focus which is missing deals with the types of software taught to the patrons in these classes. Furthermore, there is no effort to differentiate between the adults and children who are attending classes.

PURPOSE

The purpose of this research endeavor is to gather information on the introduction of public access microcomputers and computer literacy classes in public libraries in a four-state area encompassed by the organization called MFLA (or Mid West Federation of Library Associations). The states included in MFLA are Indiana, Illinois, Minnesota, and Ohio.

The information gathered will be beneficial to those librarians who wish to institute a computer literacy program in their district. These librarians will be able to use the data

obtained from this study to avoid the pitfalls and repeat the successes of those who first tread into the uncharted waters of developing computer literacy classes.

DEFINITION OF TERMS

Public library is defined as a main library with its branches, if any, administered by a single director under a unified budget.

Public access computer is a microcomputer, minicomputer, personal computer, mainframe, or terminal available to patrons which uses software for a variety of functions. Automated card catalogs are not considered public access computers for the purpose of this paper.

Computer literacy program consists of any instructional sessions during which patrons are instructed in the use of public access computers or computer software.

MFLA is an acronym for the Midwest Federation of Library Associations. The states in this organization are Ohio, Minnesota, Illinois, and Indiana.

LIMITATIONS OF THE STUDY

The survey designed by the researcher sampled a number of public libraries in Minnesota, Illinois, Indiana, and Ohio. The data gleaned from the survey may be representative of the states surveyed, but may not necessarily be generalizable to the remainder of the states.

II. LITERATURE REVIEW

The search for materials on this subject has been confined to a 25-year period ranging from 1966 until 1991. Since computers are a relatively new phenomenon a full historical coverage of the literature on the topic of introduction of microcomputers into libraries would be accomplished using that time frame.

The major indexes including Library Literature, Magazine Index, and Eric were searched on CD Rom. Dissertation Abstracts, Magazine Index, Information Science Abstracts and Lisa were searched on-line. Whenever possible, the online versions of these indexes were consulted. When CDs or on-line formats were not available, hard bound volumes were consulted.

During the literature search, the investigator discovered that the earliest references to public access microcomputers occurred in 1977 at the White Plains, New York Public Library.[16]

Phyllis Levy Mandell surveyed schools for the school year 1985-1986, and found that 91.3% of all schools reported using computers for instruction. This sounds impressive and progressive. However, if one delves more deeply, one will note that between 50 and 250 students must share one computer.[17] By having a public access microcomputer, the public library will permit more youngsters access time to computers because time can be scheduled after school and on weekends.

Since computer technology is very expensive and numerous libraries could not find excess funds in their budgets, many of these newer programs were funded by grants the traditional sources such as from businesses, corporations, foundations, and government

agencies. Barbara Harvie describes some unique methods of financing computers in libraries included car washes, bake sales, and seed and flower bulb sales.[18]

A number of programs that introduced public access computers and computer literacy classes have been found in the literature dealing with library issues. Notable examples of them are discussed in detail in the following pages. The libraries were chosen to exemplify different types of programs which have been established. Some have been designed simply for public access with no effort to institute instructional classes. The administrators of these libraries feel that the patron should educate himself. Others were designed to teach computer literacy to all patrons; to youngsters or adults; or to special needs groups such as the handicapped.

A variety of rules, regulations, and procedures have been noted and may prove helpful to librarians wishing to establish a computer literacy program.

In 1981, the San Bernadino Public Library received a grant through the Library Services and Construction Act to buy nine Apple II Plus computers and three printers. The computers were part of a grant to provide math and English drills for state mandated proficiency tests given to seniors in high school. The public library and school district worked in the cooperative venture called "Public Library Computerized Support for School Proficiency Testing." Library personnel met with individual students in schools to explain, demonstrate, and encourage pupils in the district to take advantage of the public library program.[19]

Due to the immense popularity of the computer program, the City Council allocated money to purchase additional computers and printers. After the grant ran out, the computer coordinator, Norma Lambson, insisted that the software maintain an educational perspective even though they were no longer targeting proficiency students per se.[20]

Lambson pointed out a major problem confronting those who wish to institute a computer program for public access in libraries--that of choosing the proper computer to do the task at hand. She maintains that the computer coordinator needs to "decide what it is you want the computers to do in your library and go in that direction. Buy the computer that has the most software available for your patrons' [needs]." Her recommendation is to choose one type of computer because teaching patrons how to use machines with different commands and keyboards can be extremely confusing.[21]

Patrons must complete free computer orientation classes before they may use the computer. In these classes, the patrons are taught how disks are loaded, how the computer works, and how to execute a few basic commands. Time limitations are set on reservations. A patron may reserve a computer for one hour up to one week in advance.

An outgrowth of the original program is Maglyn W. Cosand Microcomputer Laboratory in the Norman F. Feldheym Library. Cooperative support and use are shared by four different funding bodies: the Bernadino City Unified School District, the City of San Bernadino; the county Office of the San Bernadino County Superintendent of Schools; the state's Inland Empire Region 13

Teacher and Education Computer Center; and Merle Cosand, M.D., a private benefactor.[22] Lambson, Davis, and Whitney have called the implementation of this program historically significant in terms of public library and school cooperation.[23]

The Center has thirty Apple IIe microcomputers with color monitors and two disk drives each. In order to properly serve all segments of the population, different hardware is used on the computers. Touch windows are used on ten of the computers, mice are found on ten others, and joysticks are on the remainder. The computers are networked to a forty-five megabyte hard disk. A CD-ROM is available on one computer. All micros are networked to one of the three AppleWriter II dot matrix printers or the single C. Itoh daisy wheel printer.[24]

New users are coming into the library as a direct result of the new computer program. In addition, Davis has found that more gifts and donations are being received.[25]

Citizens of all ages are instructed in use of the computer by the staff at the library through introductory classes which familiarize the user with basic computer operation.

The library staff is especially proud of the "Little Bits" class. In this series of three or four classes, three-to-five year olds are given hands-on experience with the microcomputers. Children learn correct terminology for the parts of a computer, how to handle a disk correctly, and how to use the disk drive. Each week the child is given a picture to color dealing with computers. An easy and natural acceptance of a computer as a part of daily life is a goal of these instructional sessions.[26]

Micro-Quest is a career planing and employment information service established at the Library in 1982. Once again, as was found in some cases, the program came about as a result of a grant. Because of massive unemployment in the region, Micro-Quest was used to pair job hunters with employers. After taking vocational interest tests on the computers, the micro matched the users with appropriate jobs in a job bank database.[27]

Micro-Link is a reference service that links the library to its patrons twenty-four hours a day by way of modems on computers. A variety of information such as the status of books, community events, job announcements, local history, and lists of videos and compact disks can be accessed at any time, day or night. A librarian will answer any night-time queries electronically upon arrival the next morning.[28]

On occasion, extensive unemployment in a region spurs the development of a computer literacy class. Such was the case in Tacoma, Washington. Compulit, a pilot program to teach patrons what computers are and how to use them, was initiated by the Tacoma Public Library in September 1982.[29]

During the late 1970s and early 1980s, unemployment had jumped to twelve percent. Many previously employed, middle to older aged individuals found themselves unemployed for the first time in their lives. Unfortunately, there was no manner for these individuals to get some computer training except at educational institutions. Fear of going to college and lack of financial resources stopped many from attending college.

The library secured a Library Services and Construction Act

grant for forty thousand dollars to purchase computers and software for the public. Twenty thousand additional dollars were allotted to buy books, magazines, and software to support the program. Three different sets of free, computer classes were to be offered. "Computer Literacy" was an eight-hour course designed to instruct those who know nothing about computers. Terminology, parts of the computer, application programs, and the operating system were explained to the beginning student. "Programming in BASIC" used a lecture/demonstration format to teach patrons the fundamentals of the programming language, BASIC. While attending the sixteen hour course, the patron is permitted to check out and keep a computer at home until the series of classes ends. "Selected Microcomputer Applications" covered such diverse topics as word processing, spreadsheets, database management systems, graphics programs, and statistics.

Compulit was originally intended to be in effect for only four months and planned to serve two hundred individuals. At the end of four months, the program was to be moved to another library. Officials had intended to let students attend as many of the sessions as they desired. During the two-day registration period over six hundred students signed up. With such extraordinary demands placed on the system, administrators limited each student to only one session. With such a demand, the Tacoma Library applied for funds to make the program a permanent feature.

In order to use the microcomputers, a patron must be eighteen years of age or older. Statistics gathered from the patrons indicate that males and females use the facilities in equal

numbers. Fifty-four percent of the users were between the ages of thirty-six and sixty-four while thirty-two percent were from eighteen to thirty five years old. Low to moderate wage earners accounted for over fifty percent of the users.[30]

ComputerTown USA began as a research project designed to encourage computer literacy among the citizens of various localities. ComputerTowns can be found in a variety of environmental settings. Among them are those found in libraries, museums, or community centers.

The first ComputerTown was established in Menlo Park, California by Ramon Zamora and Bob Albrecht. These two authors of elementary computer programming books had the goal of making people comfortable with and able to operate computers as a personal tool. The accounts of the success of the program led to a three year $224,000 grant by the National Science Foundation to "develop Computertown/Menlo Park into a demonstration computer literacy project, to disseminate the Menlo Park Model to libraries and promote the formations of ComputerTown projects all over the United States."[31]

ComputerTown classes offer unique, informal "hand holding" classes during which patrons are helped extensively until they feel comfortable with the equipment. The beauty of the ComputerTown model is that operating budgets need not be strained. Most of the software in the projects is donated by a variety of vendors. In addition, volunteers are used to teach the classes which eliminates expensive personnel costs.

Downers Grove Public Library in Illinois was one of the first

libraries in the United States to circulate microcomputers.[32] The purchase of five Timex-Sinclair machines was underwritten by the Friends of the Library whose goal was "to increase general computer literacy among patrons and to allow individuals to assess their interest in computers before personally investing in equipment." [33] In addition to the microcomputer the Friends provided a power supply, a television adapter, instruction leaflet, and a carrying case. The patron had to provide his own software since the library would not circulate library programs. The Friends committed to paying for the repair and replacement of damaged equipment.

The popularity of the program was amazing. Within two weeks, the take-home computers had been booked for the next six months. Bookings could only be done by those who had an adult card. Children under fourteen years of age needed parental permission. The computers were checked out for a period of seven days and were non-renewable. If a patron was late in returning the micro, he was fined one dollar per day.

Amazingly enough, very few overdue fines were assessed and no big problems, losses, or damages were noted. More micros were added because of the outstanding popularity and success of the program.

The Portsmouth Public Library in New Hampshire has added four circulating public access microcomputers to the library collection. The library has taken the position to charge $10 for a twelve day loan period. The decision was made to charge to insure that money could be generated to help pay for repairs to the

equipment and to purchase additonal software. The Portsmouth Library is innovative in that it encourages microcomputer owners to bring their computers into the library on Saturday mornings to get individual help from a microcomputer professional. The cost for these three hour mini-workshops is three dollars.[34]

Nancy Jacobson, Memorial Hall Library Director in Andover, Massachusetts, has established one of the few personal computer lending programs in the United States which has been successful. Jacobson's library has long been loaning electronic equipment such as sound recorders, videocassette recorders, and movie projectors. The fee for the computer which has a built-in printer is comparable to that of the VCR rate: fifteen dollars for two nights and three days. In order to check out the computer, the patron must accept responsibility for the equipment and manuals. Fines are substantial. A late fee of ten dollars per day is assessed, while a lost or damaged software manual costs the patron a whopping one hundred dollars. Jacobson has found that the computers are most often used for educational and experimental purposes and that no problems have been encountered.[35]

Kusak and Bowers surveyed a number of libraries and found that none of the nineteen libraries which owned computers (or which planned to acquire them) plans to circulate the microcomputers.[36]

Libraries, in general, try to provide as many services as possible without resorting to fees. Requiring fees for computer use often excludes less affluent individuals. For this reason many libraries provide public access microcomputers free of charge.

Some libraries have, however, deemed that computers are a

special service that should be fee-based. Administrators at these libraries feel that pay machines will provide a method of financing the purchase and distribution of the use of the computer itself.

The White Plain Public Library in New York was the first public library to install pay-as-you-go computers. The board of directors cited three reasons for charging. First of all, no money existed to fund this new technology. Secondly, the fee had to cover the installation costs and would emphasize the value of the service and equipment. Thirdly, due to staff limitations, the computer had to be, as much as possible, a self-service operation. Under this system, patrons insert quarters into a box that is similar to those in coin-operated laundry machines. The charges are twenty five cents for four minutes or $3.50 per hour.[37]

The Tredyffrin Public Library in Stafford, Pennsylvania was one of the first libraries in the country to install a coin-operated microcomputer.[38]

Libraries can buy or rent systems from Compuvend. In most cases, machines quickly pay for themselves and make it possible for libraries to purchase additional units. Libraries can decide what type of fees to charge for the computer and can have the vendor install an override switch which allows the library personnel to use the system without having to place coins into the slot.[39]

The Tredyffrin Library charges one dollar for fifteen minutes for the use of the computer and one dollar for ten minutes for use of the printer. The staff admits that this system is confusing and

recommends against using this method of charging.[40]

As in many libraries, most instruction is left to the individual. Those patrons who are self-directed and motivated may use the computer for self-education. The library infrequently offers workshops on BASIC and VISICALC. When the classes were offered to the public, over seventy individuals signed up. The size of the classes reduced the opportunity for individual, hand-on computer time, however.

The San Francisco Public Library has instituted a revenue sharing program with the Micro Timesharing Company. Under the program patrons purchase tokens at a cost of one dollar. Each token provides twenty minutes of computing time. A printer, disk drive, monitor, and timer are included in the system. The library realizes only five percent of the total revenues generated. The vending company insists that the unit must generate $450 a month for it to remain at the library.[41]

The Nashua Public Library in New Hampshire has an unusual method of financing computers in libraries. Nashua has a lease-to-purchase option program. Clarke Davis, the library director, firmly opposes this type of revenue sharing for several reasons. He states that the computer company can remove the computers from your library if it feels that the revenues are too low. In addition, he feels that the libraries are paying over-inflated prices for computers and are not receiving adequate computer support for training from the provider.[42]

The Nashua library charges fifty cents per fifteen minutes for the use of the computer. Young adults and children are the primary

users. There are no classes and no reserves are permitted. The director is contemplating offering a workshop for business people.

The Nashua director has a perspective about games which is quite different from that of his collegues. Davis thinks that "games are a logical step towards building computer literacy and learning the keyboard." Because games can cause noise and confusion, he suggests that librarians who wish to start a computer program establish "gaming hours." These hours should generally be between three and five o'clock on weekdays when the children are out of schools and most adults don't use the library.[43]

Much of the information on the introduction of computers deals with the implementation of programs in cities. Relatively little has been written on the topic of computers in rural areas. One extremely successful program was established in 1983 in rural New York State.[44]

The Southern Adirondack Library System wished to place microcomputer centers in eight of its rural library locations. A grant through the Library Services and Construction Act secured $41,000 to establish a computer literacy program for adults.

The libraries purchased Apple II+ computers, disk drives, expansion cards, printers, and monitors. Word processing, database management, typing tutors, and home management software were purchased. Modems were later added to facilitate electronic mail, business, and financial information. In addition, the participating libraries planned to use the modems to facilitate inter-library loans.

A professional in the field of computers was hired to train librarians, staff, and volunteers. The volunteers were critical to the success of the program. Most of the volunteers were between the ages of thirty-one and forty, female, college-educated, and had some experience with computers. Careful screening and matching of volunteers to the tasks at hand encouraged efficient utilization of skills. Over 2287 hours were logged by 128 volunteers. Assuming a wage of six dollars per hour, the libraries received over $13,722 worth of free services.[45] Two thousand adults came to the libraries for computer demonstrations within six weeks of the implementation of the program. Over 177 hours of computer literacy training time were completed.[46]

Those over the age of fifty trained on the computers more than any other age group. Most wanted to keep up to date with the new technology and not be lost in the computer revolution. Teachers and job seekers attended many computer classes.[47]

When the grant period had almost elapsed, the coordinator took the literacy program out into the remote areas of the community. Nineteen small libraries, nursing homes, sheltered workshops, senior citizen centers, bookmobile stops, reading centers, and business organizations were targeted as demonstration sites. People at ese sites reported that they felt confident and less fearful of computers after the demonstrations and some hands-on experience. One positive outgrowth of the outreach sessions was that members of the business community became staunch supporters of computers in libraries.[48]

A special program aimed at "promoting computer literacy among

rural New York youngsters with little exposure to technological innovations" was reported by Romans and Ransom.[49] The project, designed for youngsters, piqued the interest of the adult population. The adults often used to computer to develop their own computer programs for business applications. Restrictions were set on the use of the computers. Adults could use the computers while the children were in school. Elementary aged school children were allowed to use the computers in the afternoons while older children could use them after six in the evenings.

Due to the extensive demand for the computers, the administration had to limit access time to fifteen minutes for game players. Programmers were permitted a one-hour block of time since programming is a time consuming operation.

The Chicago Public Library has been the definitive model for the implementation of public access computers into public libraries. The library provides Apple II computers, over 650 programs, publishes its own newsletter, offers classes, and provides periodicals on the topic of microcomputers.[50]

The introduction of the computers was not problem free. Micros caused some difficulty for the staff and patrons because they were originally placed in the adult reading room at the library. This was problematic because so many young, enthusiastic patrons joined the computer revolution. The noise was exceedingly disruptive. The constant use of the machines wore them out. Unfortunately, the computers experienced several breakdowns and often needed to be mailed away for service. The computers were sometimes unavailable for as long as eight months.[51]

After analyzing and planning for the difficulties that other libraries had encountered, Patrick Dewey established the computer program at the North Pulaski Branch of the Chicago Public Library by securing a grant from the Friends of the Chicago Public Library for over four thousand dollars. This particular branch serves primarily Spanish speaking clients.[52]

Dewey realized that putting public access micros in a public area might lead to chaos. He insisted that they be placed in the only available quiet area-- a closet that was used for storage. The advantage to this arrangement was that only a few individuals could be permitted in the room which eliminated the problem of crowds gathering around the computers. Furthermore, computer generated noise was eliminated and security to the system was improved because the door to the computer room could be secured when the microcomputers were not being used.[53]

Reservations to use the computer were required. Accurate statistics were tallied. To the surprise and delight of the library administrators, there were just as many users under age twenty-one as over twenty-one which is unusual in libraries. Wright found that nationally 71% of all microcomputer users were under the age of eighteen.[54]

After a trial period during which arcade games were permitted, the administration stopped their use. The supervisors of the computer program claimed that game use caused too much noise and encouraged illegal copying of copyrighted software.

The North-Pulaski branch serves many Spanish-speaking clients. Many have turned to the computers for help in learning English as

a second language. In addition, GED (general education degree) programs have been used by many patrons to help them secure a high school equivalency diploma or citizenship papers.[55]

If one attempted to identify a typical public access microcomputer project he might choose the Parlin Ingersoll Library in Canton, Illinois. The library used the American Library Association Planning Process and detected a need for the introduction of computers into their library. Three Apple IIE computers were selected along with fifty software titles appropriate for preschoolers to adults. Demand was considerable, so the library administration added another computer.[56]

Patrons were introduced to the computers by way of a one-hour orientation session. Tutorial programs, which give the patron hands-on practice on how to use the computer, instructed the patron on the capabilities of the computer.

As time passed, the staff discovered that the patrons needed more time to become oriented to the computer. Two-hour orientation classes were offered. Classes for young adults and children were offered on an as-needed basis because the majority of these youngsters were getting computer instruction in school. The library staff encouraged those interested in learning more about computers to enroll in classes offered at other institutions. Outside instructors taught word processing, file management, and programming on a tuition basis.[57]

In 1984, classes for preschoolers were initiated. Parents had to attend with their youngsters. The one-time session included instructions on how to handle disks, how to put disks into the

drive, and how to boot the computer. Two easy-to-use programs were demonstrated to familiarize the attendees with some software.

Efforts were made to educate individuals of all age groups in the use of computers. Children in grades three through five had the opportunity to learn how to use Bank Street Writer, a word processing program. These classes are no longer offered because the schools now teach Bank Street Writer. In order to service the young adult population, outside instructors were hired to teach junior and senior high students Apple LOGO programming and file management.

A willingness to listen to the patrons and adjust one's materials accordingly is necessary when implementing and maintaining a vibrant computer program in a library. Lori Logsdon, a former staff member at the library stated, "The needs of the Canton community have changed since the program was first implemented. The public access microcomputer program continues to evolve and change to meet them."[58]

This need for change was most evident in the adult department. The designers of the program thought that resume programs and speed reading programs would be the prime focus of the adult users. Over time the staff came to realize that the adults were primarily interested in word processing, data management, and spreadsheets and have taken steps to add more of these programs to the collection.[59]

A marvelous public access program has been in effect since 1981 at the Liverpool Public Library in New York state. This unique program was designed by Jean Polly and was funded by a

$25,000 grant for the New York legislature. The program began with Apple computers available for public access. The program now consists of an entire department, with numerous computers of various types, scanners, laser printers, software for in-library use, and surprisingly enough, circulating software. Over 10,000 software packages circulate per year.[60] Only five per cent of the software is damaged and unavailable for use at any given time.[61]

Liverpool's commitment to computer services is obvious if one examines the organizational structure. Polly, the assistant director, is also the head of the microcomputer services. Not only is there a library media specialist on staff, but also three computer room attendants and several pages are available to assist the patrons.[62]

The Liverpool Library established the first public access computer program in central New York and was the first public library to circulate software in that region. In addition, the library became the first public library east of the Mississippi River to operate electronic bulletin board services to its patrons.[63]

The computer facility is so large that the old method of keeping track of appointments by using a sign-up sheet was ineffectual. A Macintosh program called Front Desk is used to schedule appointments. The added benefit of using this program is that it tallies the number of users, computes percentages according to characteristics (i.e. by age group), and records revenues collected by each computer for print-outs.[64]

The facility is used extensively. An average of 1,100 hourly

appointments were logged per month. Users by age group do not follow the usual pattern found in libraries. At the Liverpool Library, 70% of the users are adults; 20% are children; 6% are young adults; and the remainder are families, user groups, and library personnel.[65]

In order to solve the problem of circulating copyrighted software, some libraries have chosen to follow the course set by the Arlington Heights Memorial Library in Illinois. On the advice of their legal counsel, the library does not circulate any copyrighted programs, but have invested heavily in public domain software which may be freely copied.[66]

Libraries have, at times, chosen to establish programs which serve a narrow, but especially needy, segment of society. Often the handicapped are the targeted group. The Boulder Public Library in Colorado has a unique computer program for visually handicapped individuals. The center contains computers and other equipment that can be used by handicapped and non-handicapped individuals alike.[67]

The blind are able to use software programs that "speak" the material that they have typed by using a voice synthesizer. Other programs produce a hard copy with raised bumps which the patron can feel. In addition, a reader which magnifies text thirty times is available to all the patrons. Some computers permit large-type print outs for those who are visually impaired, but not totally blind.[68]

Sighted individuals are able to type on the regular computer keyboard and have the characters converted automatically into

Braille. Many books and other materials have been created for blind individuals by volunteers at the Boulder Library. When using older technology, the volunteer transcribers would have to discard a page of text if they made an error at the end of the page. With these new machines and software programs, errors can easily be corrected at any time. An added bonus is that the transcription can be saved on disk and sent to the Braille printer whenever another patron wishes the same book or information.

The center was partially funded by an LSCA grant, a private philanthropic organization, and the Boulder Library Foundation. The administrators of the program admit that the costs are high. Even though the embosser for the computer had a price tag of $17,000, the library board was committed to providing access to information for all of its patrons, including the visually handicapped.[69]

The funding for a one-quarter-time assistant was provided by the LSCA grant. Some equipment was donated by local businesses.

Volunteers are an integral part of the Boulder program. Unfortunately, the library personnel underestimated the amount of time needed to train volunteers, patrons, and staff members. The equipment is fairly complex and some sophistication is needed to use the computer effectively.

Librarians contemplating this type of service should consider the extensive training time and plan accordingly.

III. METHODOLOGY

The researcher employed survey methodology designed to collect descriptive information about computers in public libraries. A questionnaire instrument designed by the researcher attempted to ascertain a broad spectrum of information concerning the presence of public access computers and computer literacy classes in four midwestern states--Ohio, Minnesota, Indiana, and Illinois. A list of all public libraries in these states was obtained through the 1990 edition of the American Library Directory. A random sample of thirty-one public libraries from each of the four states was selected using a table of random numbers. Questionnaires were mailed to the selected libraries.

Completion of questionnaires was anonymous. The response rate was quite impressive. A total of 80.6% of the surveys was returned upon the first mailing. The researcher was satisfied with the number of returned surveys and a follow-up was not deemed necessary.

Upon receipt of the completed questionnaires, the researcher tabulated the data. The results are analyzed and presented in the following section.

IV. ANALYSIS OF DATA

Location of Libraries

Ninety-nine of the one hundred responding libraries could be categorized by state according to the postmarks on the returned envelopes. One had no cancellation mark which made identification of the state from which it came an impossible task.

The level of response according to state was gratifying. More than 90% of the surveys sent to Ohio libraries were returned. Precisely 77.4% of the surveys from Indiana and Minnesota were returned, while 72.4% from Illinois were completed.

Size of Library Collection

The number of volumes held by the individual libraries was solicited. None of the libraries fell into the categories of over one million or 500,000 to 999,999 volumes. (See Table 1) Indiana had one library (4.2%) that had 100,000 to 499,999. Ohio and Minnesota had very similar percentages of libraries in that range--18.2% and 17.1%, respectively, while Illinois had 26.1%. Further analysis revealed that Illinois, Indiana, and Minnesota libraries had nearly identical percentages of libraries with holding between 50,000 and 99,999--17.4%, 16.7%, and 18.2%, respectively. Twenty-five percent of Ohio libraries were placed in this grouping.

The largest percentage of reporting libraries had holdings between 10,000 and 49,999 volumes. An even 75.0% from Indiana, 53.6% from Ohio, 43.5% from Illinois, and 36.4% of the libraries from Minnesota fell into this category.

Those libraries with one to 9,999 volumes comprise a small

percentage of the total in Indiana and Ohio--4.2% and 3.6% respectively. Thirteen percent of the respondents in Illinois and 27.3% from Minnesota had these small collections.

Table 1

Number of Libraries by Collection Size and State

Collection volumes	Illinois f	%	Indiana f	%	Minnesota f	%	Ohio f	%	Total f	%
1-9,999	3	13.0	1	4.2	6	27.3	1	3.6	11	11.3
10,000-49,999	10	43.5	18	75.0	8	36.4	15	53.6	51	52.6
50,000-99,999	4	17.4	4	16.7	4	18.2	7	25.0	19	19.6
100,000-499,999	6	26.1	1	4.2	4	18.2	5	17.9	16	16.5
500,000-999,999	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1,000,000+	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	23	100.0	24	100.1	22	100.1	28	100.1	97	100.0

Totals may not equal 100% due to rounding.

Public Access Microcomputers

Public access microcomputers were found in 50.8% of the libraries surveyed. Of the four states, Ohio had the highest percentage of public access microcomputers. Over two-thirds (67.9%) had computers while only 29.2% of Indiana libraries had microcomputers. Almost sixty percent (58.3%) of Minnesota and 47.8% of Illinois libraries have public access microcomputers.

Literacy Programs

Of the libraries having public access microcomputers, only 9.8% have computer literacy programs for their patrons. (See Table 2)

Once again, Ohio leads the group with 17.9% having computer literacy training. Illinois and Minnesota have similar percentages-- 8.7% and 8.3% respectively. Indiana has a poor showing with only 4.2% of the respondents having computer literacy programming.

In Ohio, all of the libraries offering computer literacy training have classes for adults and senior high students (grades nine through twelve). Eighty percent offer classes to junior high pupils (grades seven and eight); 60% for students in grades four through six; and 40% for pupils in grades Kindergarten through three. Only 20% of the libraries offered computer literacy classes to pre-school children.

Indiana has only one library that offers computer literacy classes to its patrons. All patrons from pre-school to adults are permitted to enroll in classes.

Two Illinois libraries offered computer literacy education classes. No classes were offered to students in grades six or lower by either of the libraries. One of the libraries taught only junior high students, while the other instructed only senior high pupils and adults.

Two libraries in Minnesota offer computer literacy programs. One library stated that only adults were served, while the other did not indicate the age groups served.

The number of minutes in the instructional sessions varies widely. They range in length from a high of ninety minutes to a low of thirty minutes. The length of time was variable at some libraries because some classes took longer than others to present. In these cases the respondents replied with a range of minutes.

One library had ninety-minute sessions while another had sixty-to-ninety minute sessions. Three had sixty-minute classes, while two others had forty-five to ninety-minute sessions. Only one library had classes that were only thirty minutes in length.

One library indicated that it had classes on a one-to-one basis, hence, the class length varied according to the skill of the patron.

One computer literacy program consisted merely of a tutorial disk which instructed the patron about the use of the computer.

The vast majority of the instructional sessions were limited to one class only. Forty percent stated that the content of this class consisted of the basics of computer operation. Often this session consisted of the basic check-in procedures. Only two of the libraries surveyed offered a course in the computer language called BASIC.

The most extensive classes for children covered topics such as parts of a computer; how to turn the computer off and on; "basic fun"; and a preview of programming.

A more complex series is offered for adults. One library offers a five-session program which lasts between sixty to ninety minutes each week. Patrons learn several software packages which include MS-DOS, Word Perfect, Lotus, Macintosh Basics, and

Pagemaker.

One librarian responded that she did not know the content of the courses because they were taught by an outside instructor.

Only 10% of the computer literacy classes have been in effect for eight to ten years. Twenty percent have been available for five to seven years, while 40% have existed for two to four years. Twenty percent have been offered for one year or less.

Once computer literacy classes have been offered, they are extremely popular and are seldom discontinued.

Only 10% of the libraries surveyed indicated that they have discontinued classes. Minnesota libraries have not cancelled any. One Indiana library and three Illinois libraries have eliminated sessions, while six Ohio libraries have abolished computer classes.

Classes were discontinued for a variety of reasons. Fifty percent of the classes were cancelled due to a lack of qualified personnel to teach the sessions. Lack of interest on the part of the patrons or a lack of monies to sustain the classes were cited in 20% of the cases while cost of the classes, lack of space, or vandalism each accounted for 3.3% of the cancellations.

Of the classes being discontinued, most (55.6%) were eliminated after being in effect from two to four years. The remainder were discontinued after one year or less.

Surprisingly enough, the data concerning the teachers of the computer classes is identical for the adult and children's classes.

Of the eleven respondents, four (36.4%) indicated that library

staff or an aide taught the patrons how to use the computers. Two (18.2%) noted that a community volunteer provided instruction while five (9.1% each) indicated that a professional who charges, a microcomputer specialist from a technical school, an instructor from a junior college, a reference librarian, or a children's librarian teaches the remaining classes.

In order to keep current, the library instructors employ different methods. Most commonly they read professional journals (29.2%), attend workshops (27.0%), or use time allotted by their administrators to practice the new technologies (23.6%). Self-education accounts for 2.2% of those surveyed while 1.1% of the respondents mentioned one of the following: taking time away for their other duties; consulting with a "techie"; reading manuals; teaching courses; soliciting aid from a volunteer; contacting the regional library authority; or asking school district personnel for assistance.

Table 2

Computer Literacy Programs by State

State	(n)	f	%
Illinois	23	2	8.7
Indiana	24	1	4.2
Minnesota	24	2	8.3
Ohio	28	5	17.9
Total	99	10	9.8

Funding Public Access Computers

Several different methods were used to secure funding for the addition of public access microcomputers. (See Table 3). Budget appropriation was the source of funding for 47.3% of the libraries. Six of the libraries (10.9%) indicated that they received an LSCA grant to initiate their programs. Individual donations accounted for 12.7% of the monies, while foundations supplied money for 5.5% of the projects. Friends of the libraries provided funds in 7.3% of the libraries surveyed. Corporations and business supplied equipment and software for only 1.8% of the reporting libraries.

Table 3

Means of Financing Public Access Computers

Source (n=55)	f	%
Library Budget	26	47.3
Donations	7	12.7
LSCA grant	6	10.9
Friends of the Library	4	7.3
Foundations	3	5.5
Grant from regional library	2	3.6
Business donation	1	1.8
Service organizations	1	1.8
Literacy grant	1	1.8
Contribution from the school	1	1.8
Reinbursement through ALS	1	1.8
Fundraisers	1	1.8
Matching grant from foundations/Friends	1	1.8
Total	55	100.0

Overall fewer than one-fourth (23.0%) of all libraries that have a public access microcomputer have computers listed as a

separate category on their line item budgets. A total of 16.7% of those surveyed did not know how computers were listed in their budgets.

If a grant were secured for the institution of a public access microcomputer program, it was frequently the result of the efforts of the library director or assistant director. Eleven of the sixteen respondents (68.8%) noted that the director or assistant director wrote the grant application.

In other instances, one of the following individuals secured the funding by writing a grant: tech services librarian, branch librarian, media librarian, clerk treasurer, or an area library services coordinator each of which represents 3.1% of the total.

The cost to set up the computer programs varied from less than $2000 to over $10,000.

Less than $2000 was the amount cited for the initiation of the computer literacy program in 20.0% of the libraries. The most frequently cited cost range (53.3%) was $2001 to $4000. In 13.3% of the libraries, costs were between $4001 and $6000 while only one library (2.2%) reported amounts between $6001 and $8000. More than 26.3% of the respondents cited that costs exceeded $10,000.

Ohio leads the group in computer programs which are in the more costly range. Half of the programs costing over $4001 were found in Ohio and all five of those over $10,000 were Ohio institutions.

Forty-nine percent of the libraries that had public access microcomputers housed between two and five computers. Trailing closely behind were those that had only one computer (40.8%).

Libraries with six to eight computers and those with twelve or more represented 4.1% each, while only one library surveyed had between nine and eleven computers representing 2.0% of the total.

Nearly two-thirds (62.2%) of the libraries have computers set aside specifically for adult use, whereas 50.0% had micros reserved especially for children. These figures indicate a commitment by libraries to provide services to younger and older patrons alike.

The study has pointed out one weakness in particular, namely that of a materials selection policy for software. A small portion (17.0%) had a separate materials selection policy. Only one library was in the process of formulating a policy while another stated that a policy does exist; however, it is combined with other types of media.

When selecting computer software, librarians relied heavily upon advice from patrons. Patron recommendation was the primary method of software selection (23.3%) with reviews from professional journals following closely behind (20.9%). Library co-workers and vendor catalogs were consulted equally (16.3%), as were consultants and journal advertisements (9.3%). Books about software and hands-on experimentation accounted for the least recorded method of selection (2.3%).

The selection of software generally falls into the hands of the director or assistant director (26.4%). Reference librarians are often called upon to select software (22.6%) followed by children's librarians (17.0%) and paraprofessionals or aides (5.67%). A variety of other library personnel choose software.

Among them are head librarians, computer group advisors, and assistant regional directors each of which account for 1.9% of the sample. One library spokesperson indicated that no software is currently being purchased.

Educational games are the primary type of software used by children in libraries (See Table 4). A whopping 55.2% of that software is labeled as educational. The nearest competitor for children's attention are the recreational games (20.7%), word processing (6.9%), and data base programs (3.4%). One respondent indicated that each of the following was the most likely to be used by children: resume and certificate makers; integrated software packages; Compton's Multimedia Encyclopedia; and Basic. Other responses were noted. One stated that only educational programs are permitted; another responded that there were so many that all could not be listed. Still another mentioned that there was no software for children while yet another stated that the child must be in the sixth grade to use any of the software.

Most adult patrons use software which is very different from that of youngsters. Most adults (41.9%) come into the library to use word processing programs, Print Shop type programs (18.3%), and resume writing programs (14.0%). Data management and spreadsheet users each account for 9.7% of all uses, while educational games, recreational games, and the user's own software account for the remaining 2.2% each.

Over two-thirds (67.7%) of the computers used in the children's classes are of the Apple II variety. Nearly 20% (19.3%) are IBM/IBM clones while Macintoshes account for only 6.5% of the

total.

Exactly 50.0% of all the adult classes used the Apple II series for classes while 34.5% used IBM/IBM clones. Macintoshes were used in only 15.6% of the classes.

Table 4

Type of Computer Software by User

Type of Software	Children f	Children %	Adults f	Adults %
Educational games	32	55.2	2	2.2
Recreational games	12	20.7	2	2.2
Word processing	4	6.9	39	41.9
Data base programs	2	3.4	9	9.7
Spreadsheets	0	0.0	9	9.7
Resume programs	1	1.7	13	14.0
Print shop type programs	0	0.0	17	18.3
User's own software	0	0.0	2	2.2
Basic language	1	1.7	0	0.0
Integrated programs	1	1.7	0	0.0
Comptom's Multimedia Ency.	1	1.7	0	0.0
Too many to enumerate	1	1.7	0	0.0
Must be 6th grade or above	1	1.7	0	0.0
No software for children	1	1.7	0	0.0
No games permitted .	1	1.7	0	0.0
Totals	58	99.8	93	100.2

Totals may not equal 100% due to rounding.

None of the libraries surveyed charged fees for their computer literacy courses; however, 13.3% charged an hourly fee for using the computer during non-class time. None of the libraries in Ohio or Indiana assessed fees. Over one-third (36.4%) of the Illinois libraries and 18.2% of Minnesota libraries assessed hourly fees.

All but one of the libraries that charged an hourly fee assessed a one dollar per hour fee, while the others charged fifty cents per hour. One Minnesota library reported that patrons could

"work off" the fee by volunteering their services at the library.

The only other fees reported by the libraries are those that are charged for the purchase of data disks used by the patron and for paper. Paper prices vary from a low of two cents to a high of twenty-five cents per page of printed material with ten cents being the most frequently charged amount.

Nearly half (45.6%) of the libraries surveyed have no limitation on the number of hours that a patron may use the public access microcomputers. A one-hour limitation has been imposed by 13.6% and a two-hour limit per day has been enforced by 9.1%. The next most frequently established rules are those requiring patrons to limit their use to two hours per week, four hours per week, or one-half hour per day. Each of the preceding represent 6.8% of the total. A two-hour-at-a-time limit has been adopted at 4.5% of the libraries. Only 2.2% of the libraries impose the following restrictions: one-half hour at a time; one hour at a time; and one hour per week.

Several libraries indicated that there is great latitude when imposing restrictions. Most patrons are free to continue working on the computer if no other patron desires to use the computer. One respondent indicated that those doing homework or other "serious work" have precedence over those playing games.

The researcher hopes that the information put forth will encourge thought in those hoping to implement a computer literacy program in their public libraries. An understanding of what other librarians have found successful and unsuccessful should be helpful to that end.

V. SUMMARY AND CONCLUSIONS

The findings of this study indicate that 50.8% of the libraries surveyed have public access computers. However, only 9.8% of these libraries provide any programs in computer literacy for their patrons. Of the four states that comprise the Midwest Federation of Libraries Association, the state of Ohio leads in both the number of libraries owning public access computers and in providing computer literacy programs. Programs in place vary from basic terminology, recreational and instructional games for children to word processing and spreadsheet applications for adults. The majority of the computer classes are a relatively new innovation in the libraries surveyed, having been implemented in the last one to four years. Once computer classes have been established, they are infrequently eliminated. Library staff members are most likely to teach instructional classes.

None of the libraries charged fees for the computer literacy classes, however, 13.3% charge an hourly fee for using the computers during non-class time. The most commonly assessed fee is one dollar per hour.

Funding comes primarily from the libraries' line item budgets, but other sources, in order of their frequency, include individual donations, LSCA grants, Friends of the Library, and foundations.

Vast differences in expenditures for the computer programs were noted. Most libraries expended between $2001 and $4000. The most extensive and costly computer literacy programs were found in Ohio. In addition, 49% of the libraries which have computers boast of owning between two and five, while 41% have only one.

Software selection is usually done by the assistant-director, director, or reference librarians. Patron recommendation is the primary consideration in the software selection process.

Most of the software used by children is of an educational nature. Recreational games make up a small proportion of the collections for children. Adults, however, generally choose word processing programs, resume makers, and Print Shop type programs.

Most of the computers found in libraries are of the Apple II variety. IBM or IBM clones are also frequently available while Macintoshes trail far behind.

Libraries often have to set limitations on the amount of time that patrons may use the computers in order to equitably distribute their use. Nearly half of the libraries surveyed have no limitations on the number of hours a patron may use a computer. The remaining libraries which impose time limitations often allow great latitude in the enforcement of the regulations.

APPPENDIX A

School of Library and Information Science
(216) 672-2782
Fax 216-672-7965

Kent STATE UNIVERSITY
P. O. Box 5190, Kent, Ohio 44242-0001

7032 Tamarack Dr.
Hubbard, Ohio 44425
August 25, 1991

Dear Director,

I am a graduate student in the Library Science Department at Kent State University in Kent, Ohio. In addition, I teach computer literacy classes for both adults and children at the Hubbard (Ohio) Public Library.

In order to complete the requirement for my master's paper, I have chosen to study the prevalence of public access computers in public libraries, as well as the existence of computer literacy classes, in Ohio, Indiana, Illinois, and Minnesota.

I hope to collect data that could be helpful to those contemplating the establishment of computer programs and computer literacy classes in public libraries.

Your library was selected at random from the ALA directory for inclusion in this study. Your cooperation will insure that an accurate survey of the libraries in those four states will be accomplished. If you have no public access computers, please answer only questions one and two and return the survey in the self-addressed stamped envelope. If you do have public access computers, please complete the remaining questions. The survey should take no more than five minutes to complete.

The responses provided by the individual libraries will be held in strictest confidence. At the conclusion of this research project, a summary will be made available for those wishing to know the final results.

Please return the survey as soon as possible, preferably within two weeks. A self-addressed stamped envelope is enclosed.

Thank you for your participation in this research endeavor.

Sincerely,

Barbara Jones

Barbara Jones

APPENDIX B

PUBLIC LIBRARY MICROCOMPUTER QUESTIONNAIRE

1. Approximately how many volumes does your library contain?

___ 1. over 1 million
___ 2. 500,000 to 999,999
___ 3. 100,000 to 499,9999
___ 4. 50,000 to 99,999
___ 5. 10,000 to 49,999
___ 6. 1 to 9,999

2. Does your library have any computers available to the public other than those which access the card catalog?

__ Yes (Go on to question #3)
__ No (Please return the survey if you have none. Thank you!)

3. Does your library offer a computer literacy program to patrons?

__ Yes
__ No (Go to question 5)

If yes, are the classes offered to the following groups? Check all that apply.

___ a. preschool
___ b. primary grades K-3
___ c. intermediate grades 4-6
__ d. junior high grades 7-8
__ e. senior high grades 9-12
__ f. adults over 18

How long are each of the class sessions in minutes?_____

How many sessions are offered in each of the instructional class series?_____

Please list the topics which are discussed in each particular session. For example if you talk about the parts of a computer in the first session, you would write parts of a computer on the line where session 1 is listed. The list to the left is for children's classes. The right hand list is for the adult classes.

Children's classes	Adult classes
a. Session 1_____	_____
b. Session 2_____	_____
c. Session 3_____	_____
d. Session 4_____	_____
e. Session 5_____	_____
f. Session 6_____	_____
g. Session 7_____	_____
h. Session 8_____	_____
i. Session 9_____	_____
j. Session 10_____	_____

4. How many years has your computer literacy program been in effect?

___ a. 1 year or less
___ b. 2 to 4 years
___ c. 5 to 7 years
___ d. 8 to 10 years
___ e. more than 10

5. Did your library ever offer computer literacy classes, but then discontinue them?

__ Yes
__ No (Go to question 11)

If yes, what were the reasons for discontinuation?

___ a. Lack of interest on the part of the governing board.
___ b. Lack of interest on the part of the administration.
___ c. Lack of interest on the part of the patrons.
___ d. Lack of money to sustain the program.
___ e. Lack of qualified personnel to teach the program.
___ f. Other. Please specify. _____

6. How many years were computer classes offered prior to discontinuation?

___ a. 1 year or less
___ b. 2 to 4 years
___ c. 5 to 7 years
___ d. 8 to 10 years
___ e. more than 10

7. When the first class(es) were instituted, which groups were represented. Check all that apply.

___ a. preschool
___ b. primary grades K-3
___ c. intermediate grades 4-6
__ d. junior high grades 7-8
__ e. senior high grades 9-12
__ f. adults over 18

8. As time passed, which class(es), if any, were added? Check all that apply.

___ a. preschool
___ b. primary grades K-3
___ c. intermediate grades 4-6
__ d. junior high grades 7-8
__ e. senior high grades 9-12
__ f. adults over 18

9. Who typically teaches the children's computer classes? Check the answer which most closely applies.

___ a. reference librarian
___ b. tech services librarian
___ c. children's librarian
___ d. systems analyst
__ e. community volunteer eg. businessman
__ f. paraprofessional
__ g. library staff or aide
__ h. other (Please specify)_____
_____

10. Who typically teaches the adult computer classes? Check the answer which most closely describes the computer teacher.

___ a. reference librarian
___ b. tech services librarian
___ c. children's librarian
___ d. systems analyst
__ e. community volunteer eg. businessman
__ f. paraprofessional
__ g. library staff or aide
__ h. other (Please specify)_____
_____

11. Since technology is rapidly changing, how does your computer person keep current? Check all that apply.

___ a. by attending workshops
___ b. by reading professional journals
___ c. By being allotted adequate time to learn the new technologies and software programs.
___ d. none of the above
___ e. other (Please specify)_____

12. How was the funding secured for the initial investment of the hardware and software? Indicate all that apply.

___ a. seed money
___ b. grant from LSCA
___ c. grant from business
___ d. individual donation
___ e. appropriated in budget
___ f. other (Specify)_____

13. If your library still has the public access computer, are the computers a separate category on a line item budget?

__ Yes __ No __ Don't know

14. If the money came from a grant, who was primarily responsible for the proposal?

___ a. director/asst. director
___ b. systems analyst
___ c. grant person
___ d. tech service librarian
___e. children's librarian
___f. reference librarian
___g. clerk-treasurer
___h. other _____

15. What was the cost to start up your initial program? This includes hardware and software.

___ a. less than $2000
___ b. $2001 to $4000
___ c. $4001 to $6000
___ d. $6001 to $8000
___e. $8,000 to $10000
___f. over $10,000

16. How many public access computers do you have?

___ a. none
___ b. one
c. ___ 2 to 5
d. ___ 6 to 8
e. ___ 9 to 11
f. ___ 12 or more

17. How many public access computers do you have for specifically set aside for adult patrons? _____

18. How many public access computers do you have for specifically set aside for children? _____

19. Do your have a separate materials selection policy for software?

__ Yes __ No

If yes, which do you use to help in software selection?

___ a. by review in professional journals
___ b. by patron recommendation
___ c. by colleague recommendation
___ d. journal advertisements
___ e. vendor catalogs
___ f. other (Please specify)
_____

20. Who is primarily responsible for the selection of software for the computers?

___ a. reference librarian
___ b. tech services librarian
___ c. children's librarian
___ d. systems analyst
___ e. paraprofessional
___ f. support staff or aide
___ g. a paid professional consultant
___ h. other (Please Specify)_____
_____

21. What type of software is used primarily by children?

___ a. recreational games
___ b. educational games
___ c. word processing
___ d. data base programs
___ e. other (Please specify)_____
_____

22. What type of software is used most frequently by adults?

___ a. educational games
___ b. word processing
___ c. data management
___ d. spreadsheets
___ e. Resume Writers
___ f. Print Shop type program
___ g. recreational type games
___ h. Other (Please Specify)_____

23. What types of computers do you have for your children's computer classes?

___ a. Apple II series
___ b. IBM/IBM clone
___ c. Tandy
___ d. Macintosh
___ e. Other (Please specify)_____

24. What types of computers do you have for your adult computer classes?

___ a. Apple II series
___ b. IBM/IBM clone
___ c. Tandy
___ d. Macintosh
___ e. Other (Please specify_____

25. Is there a fee for computer literacy courses? Yes____ No____

If yes, how much are the classes per hour. For example, if the course is 10 weeks and costs $20 the cost per session is $2. However, if the course is 2 hours long the cost per hour is $1.00.

___ a. less than $1
___ b. $1
___ c. $2
___ d. $3
___ e. $4
___ f. $5
___ g. more than $5 per hour

26. Is there a fee for using the computers for personal use (other than during class sessions?)

__ Yes
__ No

If yes, how much are they by the hour?_____

27. Are there limitations set on the amount of time that patrons may use the public access microcomputer (exclusive of class instruction time):

___ a. 1 hour per week
___ b. 2 hours per week
___ c. 3 hours per week
___ 4. 4 hours per week
___ 5. No limitations are set
___ 6. Other (Please Specify)_____

Thank you very much for your cooperation. Without your help, this research endeavor could not be completed. I truly appreciate your helpfulness. Please return the survey in the self-addressed stamped envelope to:

Barbara Jones
7032 Tamarack Drive
Hubbard, Ohio 44425-3052

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